

REMARKS**CLAIM REJECTIONS – 35 U.S.C. § 112**

Claims 9-14 and 16-21 stand rejected under 35 U.S.C § 112, second paragraph, “as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” The Examiner advised that with respect to claim 9-14, the limitation “the system” has insufficient antecedent basis because claim 1 is a method claim on which 9-14 depend. Similarly the Examiner advised that with respect to claim 16-21, the limitation “the computer program product” has insufficient antecedent basis because claim 1 is a method claim on which 16-21 depend. These failures of antecedent basis stem from a minor clerical error in which the original application incorrectly recited dependencies on claim 1 for claims 9-14 and claims 16-21. Applicants have accordingly amended claims 9-14 correctly to depend from independent claim 8 and claims 16-21 correctly to depend from independent claim 15. Applicants respectfully submit that this amendment adds no new matter to the claims and places the claims in condition for allowance.

ADDITIONAL AMENDMENT

In addition to the other clarifying amendments mentioned above, Applicants have also amended claims 7, 14, and 21 by inserting “new,” so that the limitation “metric pattern” is amended to read “new metric pattern.” The limitation “new metric pattern” is enabled in the original specification at page 51, lines 2-7, and in the original drawings at reference numbers 508 and 814 on Figure 8. Applicants therefore respectfully submit that this amendment adds no new matter to the claims in the present application.

CLAIM REJECTIONS – NONSTATUTORY DOUBLE PATENTING

All claims in the present application are rejected in the Office Action dated June 21, 2006 for obviousness-type double patenting over claims 1-24 of copending Application No.

10/675,671 ('the copending application'). The Office Action states that claims 1-21 are rejected as being unpatentable over claims 1-24 of the copending application because:

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: a method, a system and a computer program product for creating user metric pattern.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

The law governing double patenting is that the analysis employed in an obviousness-type double patenting determination parallels the guidelines for a 35 U.S.C. § 103(a) rejection. *Manual of Patent Examining Procedure* § 804. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966) are applied for establishing a background for determining obviousness under 35 U.S.C. § 103 and are employed when making an obviousness-type double patenting rejection. The *Graham* factual inquiries require the Examiner to:

- determine the scope and content of the art as described in copending application;
- determine the differences between the scope and content of the art as described in copending application and the claims at issue;
- determine the level of ordinary skill in the pertinent art; and
- evaluate any objective indicia of nonobviousness.

**The Office Action Fails to Establish the Required
Background for the Double Patenting Rejection**

As described above, the Office Action must apply the Graham factors to establish the required background for a double patenting rejection. The Office Action fails to apply a single Graham factor to establish any of the necessary background elements for determining obviousness. In fact, the Office Action does not even mention the *Graham* factors. In the complete absence of any mention or consideration of the Graham factors whatsoever, applicants can offer no further analysis on this issue. The Office Action cannot support an obviousness-type double patenting rejection, and the rejection should be withdrawn.

**The Present Application Is Patentably Distinct
From The Copending Application**

The present application is patentably distinct from the copending application. Obviousness-type double patenting requires rejection of an application claim when the claimed subject matter is not patentably distinct from the subject matter claimed in a commonly owned patent. See *Eli Lilly & Co. v. Barr Labs, Inc.*, 251 F.3d 955, 58 USPQ2d 1869 (Fed. Cir. 2001); *Ex parte Davis*, 56 USPQ2d 1434, 1435-36 (Bd. Pat. App. & Inter. 2000). The Office Action states that “the subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: a method, a system and a computer program product for creating a user metric pattern.”

The method of creating a user metric pattern claimed in the copending application comprises “...identifying a subset of the saved disparate user metrics that comprise a user metric pattern; and storing the subset of the saved disparate user metrics as a user metric pattern.” The present application instead claims a method comprising “...determining

that the plurality of disparate user metrics received within the network do not match a predetermined metric pattern; and saving the plurality of disparate user metrics as a new metric pattern.” The present application therefore is concerned with saving metric patterns that do not match a predetermined metric pattern as a new metric pattern while the copending application is concerned with identifying and saving a subset of disparate user metrics as a new metric pattern.

For these reasons it cannot be said that claim 1 in the present application is an obvious variation of the invention defined in claim 1 of the copending application, not is there any reason to believe that a person of ordinary skill in the art would conclude that claim 1 of the present application was an obvious variation. Claim 1 of the present application is therefore patentably distinct from claim 1 of the copending application and the nonstatutory obviousness-type double patenting rejection should be withdrawn.

**The Office Action Fails To State Reasons Why A
Person Of Skill In The Art Would Conclude
That The Claims Are Obvious**

The Office Action presents no argument why a person of ordinary skill in the art would conclude that claims 1-21 in the present case are obvious in view of claims 1-24 of copending application. In fact, the Office Action says not one word regarding why a person of ordinary skill in the art would conclude that claims 1-21 in the present case are obvious in view of claims 1-24 of the copending application. The Office Action therefore cannot support an obviousness-type double patenting rejection and the rejection should be withdrawn.

Relations Among Claims

As discussed above, claim 1 of the present application is patentably distinct from claim 1 of the copending application. Independent claims 8 and 15 recite respectively system and computer program product aspects of the method of claim 1 – just as independent claims 9 and 17 recite system and computer program product aspects of the method of claim 1 in

the copending application. Because, as shown above, claim 1 of the present application is patentably distinct from claim 1 of the copending application, then, for the same reasons, independent claims 8 and 15 also are patentably distinct from their counterparts in the copending application.

Claims 2-7, 9-14, and 16-21 of the present application depend respectively from independent claims 1, 8, and 15. Each dependent claim includes all of the limitations of the independent claim from which it depends, and for the same reasons therefore, the dependent claims in the present application are patentably distinct from the dependent claims in the copending application.

Summary Regarding Double Patenting

In summary regarding the double patenting rejections, therefore: The Office Action of June 21, 2006, does not establish the necessary background for determining obviousness required by an obviousness-type double patenting rejection. Furthermore, Claims 1-21 of the instant application are patentably distinct from claims 1-24 of the copending application. The Office Action also fails to articulate reasons why a person of ordinary skill in the art would conclude that claims 1-21 in the present case are obvious in view of claims 1-24 of the copending application. The rejection of claims 1-21 should therefore be withdrawn.

All claims in the present case stand rejected under nonstatutory double patenting. The applicants respectfully propose that all the dependent claims in the present case stand because the independent claims 1, 8, and 15 stand. The double patenting rejections of all the claims 1-21 are therefore traversed and should be withdrawn. Reconsideration of claims 1-21 in light of the present remarks is respectfully requested.

CLAIM REJECTIONS – 35 U.S.C. §102 OVER KHAN

Claims 1-21 stand rejected under 35 U.S.C § 102(b) as being anticipated by Khan *et al.* (U.S. Patent No. 5,058,180) (hereinafter, ‘Kahn’). To anticipate claims 1-21 under 35 U.S.C. § 102(b), two basic requirements must be met. For Khan to anticipate claims of the present application, Khan must disclose each and every element as set forth in Applicants’ claims. As will be shown below, however, Khan does not anticipate creating user metric patterns including user notification as claimed in the present application. Claims 1-21 are therefore patentable and should be allowed. Applicants respectfully traverse each rejection individually below and request reconsideration of claims 1-21.

Khan Does Not Disclose Each and Every Element Of The Claims Of The Present Application

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As explained in more detail below, Khan does not disclose each and every element of claim 1, and Khan therefore cannot be said to anticipate the claims of the present application within the meaning of 35 U.S.C. § 102 (b).

Independent claim 1 claims:

A method for creating a user metric pattern, the method comprising:

receiving, within a network, a plurality of disparate user metrics;

determining that the plurality of disparate user metrics received within the network do not match a predetermined metric pattern; and

saving the plurality of disparate user metrics as a new metric pattern.

**Khan Does Not Disclose Receiving, Within A Network,
A Plurality Of Disparate User Metrics**

The Office Action takes the position that Khan at the abstract and in figure 5 discloses the first element of claim 1: receiving, within a network, a plurality of disparate user metrics. Applicants respectfully note in response, however, that what Khan at the abstract, in fact discloses is:

A self-organizing neural network having input and output neurons mutually coupled via bottom-up and top-down adaptive weight matrices performs pattern recognition while using substantially fewer neurons and being substantially immune from pattern distortion or rotation. The network is first trained in accordance with the adaptive resonance theory by inputting reference pattern data into the input neurons for clustering within the output neurons. The input neurons then receive subject pattern data which are transferred via a bottom-up adaptive weight matrix to a set of output neurons. Vigilance testing is performed and multiple computed vigilance parameters are generated. A predetermined, but selectively variable, reference vigilance parameter is compared individually against each computed vigilance parameter and adjusted with each comparison until each computed vigilance parameter equals or exceeds the adjusted reference vigilance parameter, thereby producing an adjusted reference vigilance parameter for each output neuron. The input pattern is classified according to the output neuron corresponding to the maximum adjusted reference vigilance parameter. Alternatively, the original computed vigilance parameters can be used by classifying the input pattern according to the output neuron corresponding to the maximum computer vigilance parameter.

Khan generally concerns a neural network that prevents memory washout, allows recognition of closely matching but less than perfect input pattern information, and prevents overloading of the system caused by excessive clustering of input pattern information (column 7, lines 49-54). The neural network taught in Khan provides a central purpose of pattern recognition and more particularly to recognize handwritten digits (column 1, lines 18-210). What Khan discloses in the abstract and Figure 5 is the characteristics of a self-organizing neural network and how that neural network is trained. Khan does not disclose, however, at these reference points or anywhere else in Khan, receiving within a network, *a plurality of disparate user metrics* as claimed in the present

application. None of the inputs to the neural network taught in Khan are in any way a plurality of disparate user metrics as claimed in the present application. In fact the only item Khan discloses “receiving” in the abstract and figure 5 is “subject pattern data” which is not “a plurality of disparate user metrics” as claimed in the present invention but instead is a pattern more similar to handwritten digits (column 1, lines 18-210).

For these reasons, Khan cannot be said to disclose or anticipate receiving, within a network, a plurality of disparate user metrics as claimed in the present application, and the Office Action therefore cannot establish a prima facie case of obviousness. The rejection of claim 1 for this reason alone should be withdrawn.

**Khan Does Not Disclose Determining That The Plurality
Of Disparate User Metrics Received Within The Network
Do Not Match A Predetermined Metric Pattern**

The Office Action takes the position that Khan at the abstract and figure 6, element 170 discloses the second element of claim 1: determining that the plurality of disparate user metrics received within the network do not match a predetermined metric pattern. The full actual wording of Khan’s Abstract is already set forth above in this Response. Element 170 of Figure 6 is described in Khan as column 12, lines 18-21, as:

Once all adjusted reference vigilance parameters P_{adj} have been computed and stored, the next step 170 is to match a learned pattern with the subject pattern.

That is, what Khan actually teaches in the abstract and figure 6, element 170 is a self-organizing neural network for performing pattern recognition. Figure 6, element 170 discloses matching a learned pattern with the subject pattern. Khan does not disclose, however, at these reference points or anywhere else in Khan, determining that the plurality of disparate user metrics received within the network do not match a predetermined *metric pattern* as claimed in the present application. A “predetermined metric pattern”, as such, is not taught or suggested by Khan. Khan is concerned with pattern recognition in such cases as handwritten digits (column 1, lines 18-210) and in no

way teaches or suggests matching a predetermined *metric pattern* as claimed in the present invention.

Furthermore, Khan does not teach determining that the plurality of disparate user metrics *does not match* a predetermined metric pattern – so that the plurality can be saved as a new metric pattern. Khan, by way of contrast, discloses a system that is designed to insure the matching of subject pattern data with learned pattern data (abstract and column 12, lines 18-21) – with no concern whatsoever to take any action regarding mismatches. As shown by the following language from Khan at column 6, lines 38-54, the only effect of a mismatch in Khan is that Khan's neural network accomplishes no learning:

Thus, the ART network 40 allows "learning" (i.e., alteration of its adaptive weight matrices' coefficients) to occur only if the input pattern information I.sub.i is sufficiently similar to any of its learned expectations. If the input information I.sub.i is not sufficiently similar, no "learning" takes place.

However, if examination of the input information I.sub.i results in the selection of an uncommitted output neuron within the F2 layer 44, the bottom-up Z.sub.ij and top-down Z.sub.ji matrix coefficients corresponding to this previously uncommitted output neuron "learn" accordingly, as described above. Further however, if the full capacity of the ART network 40 has been exhausted, i.e., no further uncommitted output neurons exist within the F2 layer 44, and no match exists with any committed output neurons, learning is inhibited.

For these reasons, it cannot be said that Khan discloses determining that the plurality of disparate user metrics received within the network do not match a predetermined metric pattern as claimed here. The Office Action therefore cannot establish a prima facie case of obviousness, and the rejection of claim 1 should be withdrawn.

**Khan Does Not Disclose Saving The Plurality Of
Disparate User Metrics As A New Metric Pattern**

The Office Action takes the position that Khan at the abstract, figures 5-9, and column 10, lines 44-66 discloses the third element of claim 1: saving the plurality of disparate user metrics as a new metric pattern. The full actual wording of Khan's Abstract is already set forth above in this Response. Khan at column 10, lines 44-66 discloses:

Once all adjusted reference vigilance parameters P_{arj} have been computed and stored within the vigilance parameter memory 118, the stored, adjusted reference vigilance parameter P_{arj} having the highest value is used to select the learned pattern which is to be designated as the pattern most closely matching the input subject pattern information I_i . The pattern data 124 representing this selected, learned pattern stored within the pattern memory 122 is outputted therefrom.

In an alternative preferred embodiment of a neural network 100 in accordance with the present invention, the computed vigilance parameters P_{cj} corresponding respectively with each output neuron within the F2 layer 120 are stored in the vigilance parameter memory 118. Once all computed vigilance parameters P_{cj} have been computed and stored within the vigilance parameter memory 118, the stored, computed vigilance parameter P_{cj} having the highest value is used to select the learned pattern which is to be designated as the pattern most closely matching the input subject pattern information I_i . The pattern data 124 representing this selected, learned pattern stored within the pattern memory 122 is outputted therefrom.

That is, what Khan actually teaches at the abstract, figures 5-9, and column 10, lines 44-66 is selecting a learned pattern stored in memory that most closely matches the subject pattern. Generally, the teachings of Khan are concerned with a neural network that performs pattern recognition (first sentence of Khan's abstract). Khan more specifically teaches the process of pattern recognition in column 10, lines 44-66. At this point in the reference the highest vigilance parameter is used to select the learned pattern which most closely matches the subject pattern (column 10, lines 60-66). Khan only teaches selecting a stored pattern from within the pattern memory (column 10, lines 61-66) and does not teach, at this point or anywhere else in Khan, *saving* the plurality of disparate user metrics as a new metric pattern as claimed in the present application. In fact, Khan does not even disclose "saving" any mismatched pattern whatsoever. On the contrary, as

mentioned above, Khan's only disclosure regarding mismatched patterns is that a mismatch results in no learning in Khan's neural network (column 6, lines 38-54). For these reasons, it cannot be said that Khan discloses or anticipates saving the plurality of disparate user metrics as a new metric pattern as claimed here. The Office Action therefore cannot establish a prima facie case of obviousness, and the rejection of claim 1 should be withdrawn.

Relations Among Claims

Claims 8 and 15 respectively recite system and computer program product aspects of the method of claim 1. Claims 8 and 15 therefore are patentable if claim 1 is patentable. Claim 1 is patentable for the reasons set forth above. Claims 8 and 15 therefore are patentable for the same reasons.

Claims 2-7, 9-14, and 16-21 depend respectively from independent claims 1, 8, and 15. Each dependent claim includes all of the limitations of the independent claim from which it depends. Because Kahn does not disclose or enable each and every element of the independent claims, Kahn does not disclose or enable each and every element of the dependent claims of the present application. Claims 2-7, 9-14, and 16-21 therefore are also patentable and should be allowed.

Conclusion

Claims 9-14 and 16-21 stand rejected under 35 U.S.C. § 112 for being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 5-7, 9-14, and 16-21 are currently amended to rectify the failures of antecedent basis due to minor clerical errors.

Claims 1-21 stand rejected under judicially created doctrine of nonstatutory obviousness-type double patenting in view of copending Application No. 10/675, 671. Claims 1-21 of

the instant application are patentably distinct from claim 1-24 of the copending application.

Claims 1-21 stand rejected under 35 U.S.C § 102 as being anticipated by Kahn. Kahn does not disclose each and every element of Applicants' claims and does not enable Applicants' claims. Kahn therefore does not anticipate Applicants' claims. Claims 1-21 are therefore patentable and should be allowed. Applicants respectfully request reconsideration of claims 1-21.

The Commissioner is hereby authorized to charge or credit Deposit Account No. 09-0447 for any fees required or overpaid.

Respectfully submitted,

Date: September 21, 2006

By:

A handwritten signature in cursive script, appearing to read "John Biggers", is written over a horizontal line.

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